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APPLICANT(s): Ford et al.
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Commissioner For Patents
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Sir:

Applicant(s) claim the benefit of the following prior foreign patent application under 35 U.S.C. §119 for the above-identified U.S. patent application:

Country: United Kingdom
Application No.: 0327217.6
Filing Date: November 22, 2003

Attached is a certified copy of the foreign application from which priority is claimed.

Respectfully submitted,

Harry F. Smith (Reg. No. 32,493)

3/12/2004

Date

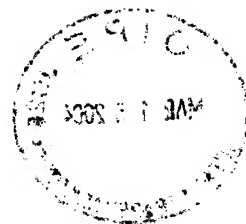
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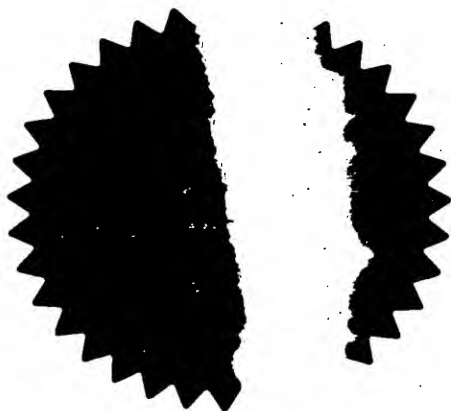
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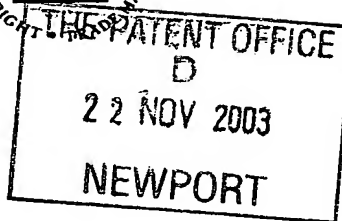


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P01/7700 0.00-0327217.6

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NP10 8QQ

1. Your reference

PH/8579

2. Patent application number

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0327217.6

3. Full name, address and postcode of the or of each applicant (underline all surnames)

Nokia Corporation,
Keilalahdentie 4, FIN-02150,
Espoo, Finland

Patents ADP number (if you know it)

07652217001

If the applicant is a corporate body, give the country/state of its incorporation

Finland

4. Title of the invention

Data Delivery

5. Name of your agent (if you have one)

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

Swindell & Pearson
48 Friar Gate
Derby
DE1 1GY

Patents ADP number (if you know it)

00001578001 ✓

6. Priority: Complete this section if you are declaring priority from one or more earlier patent applications, filed in the last 12 months.

Country

Priority application number
(if you know it)

Date of filing
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7. Divisionals, etc: Complete this section only if this application is a divisional application or resulted from an entitlement dispute (see note f)

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Yes

Answer YES if:

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Patents Form 1/77

9. Accompanying documents: A patent application must include a description of the invention. Not counting duplicates, please enter the number of pages of each item accompanying this form:

Continuation sheets of this form	0
Description	9
Claim(s)	6
Abstract	1
Drawing(s)	3

23 y

10. If you are also filing any of the following, state how many against each item.

Priority documents

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for a preliminary examination and search (Patents Form 9/77)

Request for a substantive examination (Patents Form 10/77)

Any other documents (please specify)

11. I/We request the grant of a patent on the basis of this application.

Signature(s)

Swindell & Pearson

Date 21st November 201

12. Name, daytime telephone number and e-mail address, if any, of person to contact in the United Kingdom

Paul Higgin - 01332 367051

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TITLE

Data delivery.

FIELD OF THE INVENTION

- 5 Embodiments of the present invention relate to methods and devices for sending data.

BACKGROUND TO THE INVENTION

- 10 At present, if a user wishes, for example, to send a text message, the user must enter a text messaging application, write the message and then specify the address to which it should be sent before sending the messaging.

- 15 It would be desirable to improve the ease with which a user can send data using a mobile telephone.

BRIEF DESCRIPTION OF THE INVENTION

- 20 The inventors realised that the process by which data is sent by a mobile cellular telephone can be improved when the telephone is participating in a telephone call.

- 25 The inventors realised that when a party to an on-going telephone call wishes to send data during the telephone call, they will often wish to send that data to the other party or parties participating in the on-going telephone call.

- 30 According to one embodiment there is provided a method of sending data from a first party participating in a telephone call to a second party participating in the telephone call, comprising, in the terminal of the first party, storing, as a consequence of the telephone call, identifier data that identifies the second party;

using the stored identifier data to determine automatically a destination address for a data message; and sending, during the telephone call, the data message with the automatically determined destination address.

- 5 According to another embodiment there is provided a mobile cellular telephone terminal comprising: a radio cellular transceiver for enabling participation in a telephone call to a second terminal; a memory; and control means for storing in the memory, as a consequence of the telephone call, identifier data identifying the second terminal or its user, for determining
10 automatically a destination address for a data message using the stored identifier data and for controlling the radio cellular transceiver to send the data message with the automatically determined destination address during the telephone call.
- 15 According to another embodiment there is provided a method for sending data from a first party participating in a telephone call to a second party participating in the telephone call, comprising, in the terminal of the first party: providing, while the telephone call is on-going, a user selectable option to transfer data to another party participating in the telephone call without user
20 specification of a destination address.

- According to another embodiment there is provided a mobile cellular telephone terminal comprising: a radio cellular transceiver for enabling participation in a telephone call to a second terminal; a user interface; and
25 control means for providing, temporarily while the telephone call is on-going, in the user interface a user selectable option to transfer data to another party participating in the telephone call without user specification of a destination address.
- 30 Embodiments of the invention therefore provide an easier and faster way to send data to a likely recipient during a telephone call.

According to another embodiment there is provided a method of sending data from a first party to a second party, comprising, in the terminal of the first party: storing, as a consequence of a communication between the first party and the second party, identifier data that identifies the second party; using, subsequent to the communication between the first party and the second party, the stored identifier data to determine automatically a destination address for a data message; and sending the data message with the automatically determined destination address.

- 10 According to another embodiment there is provided a mobile communications terminal comprising: a radio cellular transceiver for enabling communication with a second terminal; a memory; and control means for storing in the memory, as a consequence of the communication, identifier data identifying the second terminal or its user, for determining automatically a destination address for a data message using the stored identifier data, and for controlling the radio cellular transceiver to send the data message with the automatically determined destination address.

BRIEF DESCRIPTION OF THE DRAWINGS

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For a better understanding of the present invention reference will now be made by way of example only to the accompanying drawings in which:

Fig. 1 illustrates a mobile cellular radio telecommunications network 2;

Fig. 2 illustrates the first mobile cellular telephone terminal 6 in more detail;

- 25 Fig 3 illustrates the process by which data is sent by the first terminal to the second terminal while it is participating in a telephone call with the second terminal; and

Fig 4 illustrates an alternative process by which data is sent by the first terminal to the second terminal while it is participating in a telephone call with the second terminal.

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DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

Fig. 1 illustrates a mobile cellular radio telecommunications network 2. The network 2 comprises network infrastructure 4 that typically includes a switching centre connected to a plurality of base transceiver stations, a first cellular mobile telephone terminal 6 and a second cellular mobile telephone terminal 8. In other embodiments, the network 2 may be connected to the public service telephone network (PSTN) and the second terminal 8 may be a telephone terminal or a computer terminal. The first mobile cellular telephone terminal 6 is used by a first user 12 and the second terminal 8 is used by a second user 14.

Fig. 2 illustrates the first mobile cellular telephone terminal 6 in more detail. It comprises: a radio cellular transceiver 20; a memory 22; a user interface 24 and a control means 30.

The user interface 24 includes a display 25, a user selection device 26 such a keypad or joystick, an audio input device 27 and an audio output device 28.

The control means 30 is provided, in this example, by a suitably programmed processor. The processor 30 is connected to provide information to and receive information from the radio cellular transceiver 20. This information includes speech and, may, in some embodiments, include data. The processor 30 is connected to read to and to write from the memory 22. The processor 30 is connected to provide display control signals to the display 25 and receive control signals from the selection device 26. During a telephone call, it also provides speech information received from the radio cellular transceiver 20 to the audio output device 28 and provides speech information received from the audio input device 27 to the radio cellular transceiver 20. In other embodiments one or more processors and one or more memories may be used.

The radio cellular transceiver 20 communicates wirelessly with the infrastructure 4 of the mobile cellular radio telecommunications network 2. This communication enables the terminal 6 to participate in a telephone call with the second terminal 8. The radio cellular transceiver 20 may additionally enable the first terminal 6 to communicate data to the second terminal 8. This may, for example, be as a multimedia messaging service (MMS) message, a short messaging service (SMS) message or as an email message. In other alternative embodiments, the first terminal may comprise an additional transceiver (not shown) for communicating with the second terminal. Such a transceiver is preferably a short-range wireless transceiver such as an infrared (IR) transceiver or a low power radio frequency transceiver such as a Bluetooth (trademark) transceiver.

Fig 3 illustrates the process by which data is sent by the first terminal 6 to the second terminal 8 while it is participating in a telephone call with the second terminal 8. The first user 12 and second user 14 are respective first and second parties to the telephone call. The process occurs within the first terminal 6 and is controlled by the processor 30.

In this example, the call is initiated by the first terminal 6 at step 100. As a consequence of the telephone call the processor 30, at step 102, automatically stores identifier data identifying the destination of the telephone call in the memory 22. In this case, the destination is the second terminal 8 or its user 14. If the telephone call is a circuit switched telephone call, the identifier data is the telephone number of the second party 14 and the memory 22 is a memory for storing dialled telephone numbers.

If during the telephone call the first party 12 wishes to send a data message to the other party 14, she makes a selection at step 104. The processor 30 responds to this selection at step 106 by controlling the display to provide a number of alternative user selectable options. The provided options depend upon the application from which the selection at step 104 is made. However,

at least one option is "send to caller", the selection of which at step 108 enables a data message to be sent without the user input of a destination address.

- 5 The application is preferably context aware in the sense that it is aware that a telephone call is ongoing and the provided options are temporarily adapted to include "send to caller" as an additional option while the telephone call is on-going. This may be achieved by setting a flag in the memory 22 to indicate whether a call is on-going or not. The processor 30 responds to the selection
- 10 at step 106 by reading the flag from the memory 22. If the flag indicates that a telephone call is not on-going the options provided at step 106 include the option "send" but not the "send to caller" option. Selection of the "send" option enables a data message to be sent after the user has input a destination address. If the flag indicates that a telephone call is on-going the options
- 15 provided at step 106 include the option "send to caller" in addition to the option "send", thus augmenting the provided options.

One type of application is a data handling application such as a calendar application that stores appointments. The selection at step 104 enables a user

20 to send details of an appointment as a data message. The selection at step 108 enables a user to send details of an appointment as a data message to the other party participating in an on-going telephone call without inputting the destination address. Another type of data handling message is a contacts application that stores contact details as a series of entries. Each entry may

25 include a postal address, telephone numbers and email addresses. The selection at step 104 enables a user to send details from an entry as a data message. The selection at step 108 enables a user to send details from an entry as a data message to the other party participating in an on-going telephone call without inputting the destination address.

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Another type of application is a data creation application such as a text entry application, a video camera application or a digital camera application. The

selection at step 104 enables a user to send respectively text, a video clip or an image as a data message. The selection at step 108 enables a user to send respectively text, a video clip or an image as a data message to the other party participating in an on-going telephone call without inputting the destination address.

When the "send to caller" option is selected at step 108, the processor 30 at step 110 automatically determines a destination address for the data message using the identifier data stored at step 102. The processor 30 automatically interrogates a database using the telephone number stored at step 102 to obtain the destination address. The database associates different telephone numbers with the data delivery addresses of different persons. Each different identifier data is associated with the data delivery addresses of one person such as their email address, their telephone number, or their Bluetooth device address. The database may be the same database used by the Contacts application.

Then having determined the data delivery addresses, the processor 30 at step 112 controls the display to present for user selection one or more delivery mechanisms related to the determined delivery addresses.

If the determined delivery addresses includes a mobile telephone number, the delivery mechanisms may include: Short Messaging Service (SMS) which is suitable for alphanumeric text or Multimedia Messaging Service (MMS) which is suitable for still images.

The delivery mechanisms presented may be related to the application from which the selection has been made. Thus SMS is only presented if the selection is from an application that is text-based such as a Calendar, Contacts or text messaging. Thus MMS is only presented if the selection is from an application that is image-based such a digital camera application or an application that has the ability to insert images therein.

If the determined delivery addresses includes an email address the delivery mechanisms may include email, which is suitable for having text or mark-up language as its body and files as attachments, such as image or video files.

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If the determined delivery addresses includes a Bluetooth Device address the delivery mechanism will include packet data.

At step 114 the user selects one of the presented delivery mechanisms.

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At step 116, the processor controls the sending of the data message by the selected delivery mechanism using the destination address determined at step 110. The data message is sent via a new channel that runs in parallel with the voice channel used for the telephone call. If the data message is sent using the radio cellular transceiver it may be sent on a separate or the same transport layer to the voice call.

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If there is only a single data delivery mechanism available steps 112 and 114 may be automated.

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Fig 4 also illustrates the process by which data is sent by the first terminal to the second terminal while it is participating in a telephone call with the second terminal. The steps 106 to 116 are the same, the steps 100' and 102' are different to the steps 100 and 102 in Fig. 3. In this example, the call is initiated by the first terminal at step 100'. As a consequence of the telephone call, at step 102', the processor 30 automatically stores identifier data identifying the origin of the telephone call in the memory. In this case, the destination is the second terminal or its user. If the telephone call is a circuit switched telephone call, the identifier data is the telephone number of the second party received via the radio cellular transceiver using call line identification (CLI) or its equivalent. However, when the "send to caller" option is selected at step 108,

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the processor 30 at step 110 automatically determines a destination address for a data message using the identifier data stored at step 102' not step 102.

5 In the preceding examples, data is sent by the first terminal to the second terminal while it is participating in a telephone call with the second terminal and the phone automatically presents the option "send to caller". In another example, data is sent by the first terminal to the second terminal after participation in a telephone call with the second terminal. This may occur while the first terminal is not participating in any telephone call or it may occur
10 while the first terminal is participating in a telephone call with a third terminal. The phone may automatically present an option to "send to the last caller". The last caller may have originated or terminated the call with the first terminal.

15 Although embodiments of the present invention have been described in the preceding paragraphs with reference to various examples, it should be appreciated that modifications to the examples given can be made without departing from the scope of the invention as claimed.

20 I/we claim:

CLAIMS

1. A method of sending data from a first party participating in a telephone call to a second party participating in the telephone call, comprising, in the
5 terminal of the first party,
storing, as a consequence of the telephone call, identifier data that identifies the second party;
using the stored identifier data to determine automatically a destination address for a data message; and
10 sending, during the telephone call, the data message with the automatically determined destination address.
2. A method as claimed in claim 1, wherein the telephone call is initiated at the terminal of the first party and the step of storing the identifier data comprises
15 storing the destination of the telephone call.
3. A method as claimed in claim 2, wherein the telephone call is a circuit switched telephone call and the identifier data is the telephone number of the
20 second party.
4. A method as claimed in claim 1, wherein the telephone call is terminated at the terminal of the first party and the step of storing identifier data comprises storing the origin of the telephone call.
- 25 5. A method as claimed in claim 4, wherein the telephone call is a circuit switched telephone call and the identifier data is the telephone number of the second party.
6. A method as claimed in claim 4, wherein the telephone number of the
30 second party is provided by call line identification (CLI) or equivalent.

7. A method as claimed in any preceding claim wherein the step of using the stored identifier data to determine automatically a destination address for a data message comprises automatically interrogating a database using the identifier data to obtain the destination address.

5

8. A method as claimed in claim 7 wherein the database associates the identifier data with contact addresses of the second party.

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9. A method as claimed in any preceding claim wherein the destination address is any one of: an email address, a telephone number, a Bluetooth device address.

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10. A method as claimed in any preceding claim further comprising:
providing, only during the telephone call, a user selectable option to transfer data to the other party participating in the telephone call without user specification of a destination address.

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11. A method as claimed in claim 10, wherein the user selection of the temporarily provided transfer option enables, in the terminal of the first user, the step of using the stored identifier data to determine automatically a destination address for a data message.

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12. A mobile cellular telephone terminal comprising:
a radio cellular transceiver for enabling participation in a telephone call to a second terminal;
a memory; and

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control means for storing in the memory, as a consequence of the telephone call, identifier data identifying the second terminal or its user, for determining automatically a destination address for a data message using the stored identifier data and for controlling the radio cellular transceiver to send the data message with the automatically determined destination address during the telephone call.

13. A mobile telephone terminal as claimed in claim 12, wherein the stored identifier data is a dialled telephone number.

5 14. A mobile telephone terminal as claimed in claim 12, wherein the stored identifier data is a telephone number received via the radio cellular transceiver.

10 15. A mobile telephone terminal as claimed in claim 12, 13 or 14, further comprising a database, wherein the control means is operable to interrogate the database using the identifier data to obtain the destination address.

15 16. A mobile telephone terminal as claimed in claim 15, wherein the database associates each of a plurality of different identifier data with respective different contact addresses.

20 17. A mobile telephone terminal as claimed in any one of claims 12 to 16, wherein the destination address is any one of: an email address, a telephone number, a Bluetooth device address.

25 18. A mobile telephone terminal as claimed in any one of claims 12 to 17, further comprising a user interface for providing a user selectable option to transfer data to another party participating in the telephone call without user specification of a destination address.

19. A mobile telephone terminal as claimed in claim 18, wherein the user selectable option is provided only during the telephone call.

30 20. A method for sending data from a first party participating in a telephone call to a second party participating in the telephone call, comprising, in the terminal of the first party:

providing, while the telephone call is on-going, a user selectable option to transfer data to another party participating in the telephone call without user specification of a destination address.

5 21. A method as claimed in claim 20, wherein selecting the provided option enables user selection of one of a plurality of delivery mechanisms.

22. A method as claimed in claim 20, wherein selecting the provided option enables automatic selection of a delivery mechanism.

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23. A method as claimed in claim 20, wherein the step of providing, while the telephone call is on-going, a user selectable option to transfer data to another party participating in the telephone call without user specification of a destination address provides more than one user selectable option to transfer data to another party participating in the telephone call without user specification of a destination address, wherein each option enables a different delivery mechanism.

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24. A method as claimed in any one of claims 20 to 23, further comprising automatically storing, as a consequence of the telephone call, data that identifies the second party, wherein selecting a provided option enables using the stored data to determine automatically a destination address for a data message.

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25 25. A method as claimed in any one of claims 20 to 23, further comprising sending the data message with the determined destination address.

26. A method as claimed in claim 24 or 25, wherein the destination address is any one of: email address, telephone number, Bluetooth device address

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27. A method as claimed in any one of claims 20 to 26, wherein the step of providing, while the telephone call is on-going, a user selectable option to

transfer data to another party participating in the telephone call without user specification of a destination address temporarily augments automatically a user selectable data transfer option for transferring data to a user determined destination address.

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28. A mobile cellular telephone terminal comprising:
a radio cellular transceiver for enabling participation in a telephone call to a second terminal;
a user interface; and

10 control means for providing, temporarily while the telephone call is on-going, in the user interface a user selectable option to transfer data to another party participating in the telephone call without user specification of a destination address.

15 29. A mobile cellular telephone terminal as claimed in claim 28, wherein the control means responds to user selection of the provided option to provide a plurality of user selectable delivery mechanisms.

20 30. A mobile cellular telephone terminal as claimed in claim 28, wherein the control means responds to user selection of the provided option to automatically select a delivery mechanism.

25 30. A mobile cellular telephone terminal as claimed in claim 28, wherein the control means automatically stores, as a consequence of the telephone call, data that identifies the second party and is responsive to the user selection of provided option to automatically determine, using the stored data, a destination address for a data message.

30 31. A mobile cellular telephone terminal as claimed in claim 30, wherein control means controls the radio transceiver to send a data message with the determined destination address.

32. A mobile cellular telephone terminal as claimed in claim 30 or 31, wherein the destination address is any one of: an email address, a telephone number, and a Bluetooth device address.

5 33. A method of sending data from a first party to a second party, comprising, in a terminal of the first party: storing, as a consequence of a communication between the first party and the second party, identifier data that identifies the second party; using, subsequent to the communication between the first party and the second party, the stored identifier data to determine automatically a
10 destination address for a data message; and sending a data message with the automatically determined destination address.

34. A mobile communications terminal comprising:
a radio cellular transceiver for enabling communication with a second
15 terminal;
a memory; and
control means for storing in the memory, as a consequence of the communication, identifier data identifying the second terminal or its user, for determining automatically a destination address for a data message using the
20 stored identifier data, and for controlling the radio cellular transceiver to send a data message with the automatically determined destination address.

ABSTRACT

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5 A method of sending data from a first party participating in a telephone call to
a second party participating in the telephone call, comprising, in the terminal
of the first party, storing, as a consequence of the telephone call, identifier
data that identifies the second party; using the stored identifier data to
determine automatically a destination address for a data message; and
sending, during the telephone call, the data message with the automatically
determined destination address. A method for sending data from a first party
10 participating in a telephone call to a second party participating in the
telephone call, comprising, in the terminal of the first party: providing, while
the telephone call is on-going, a user selectable option to transfer data to
another party participating in the telephone call without user specification of a
destination address.

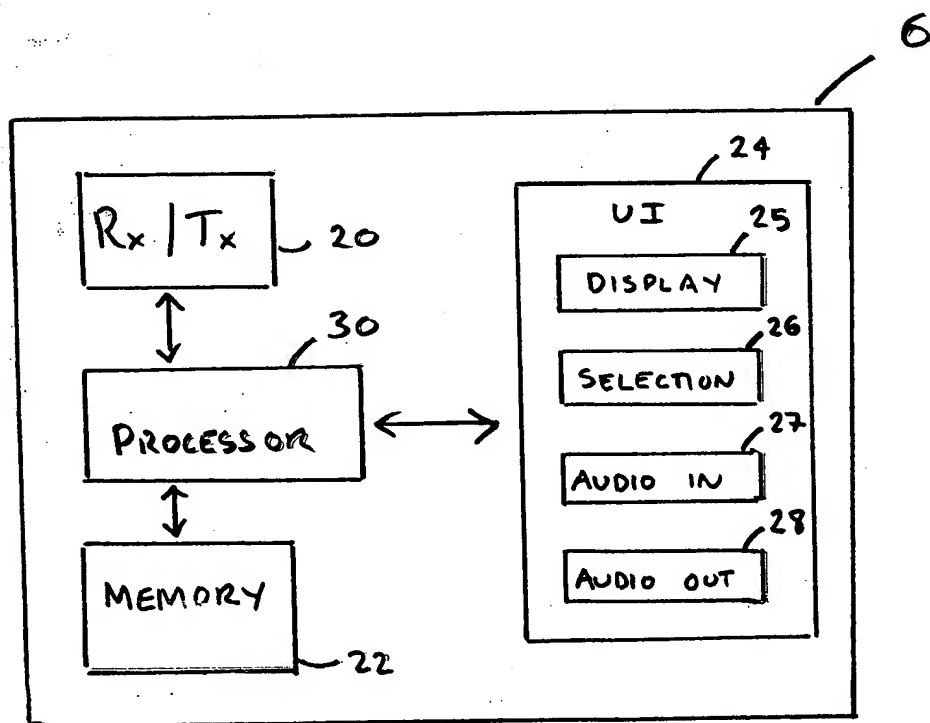
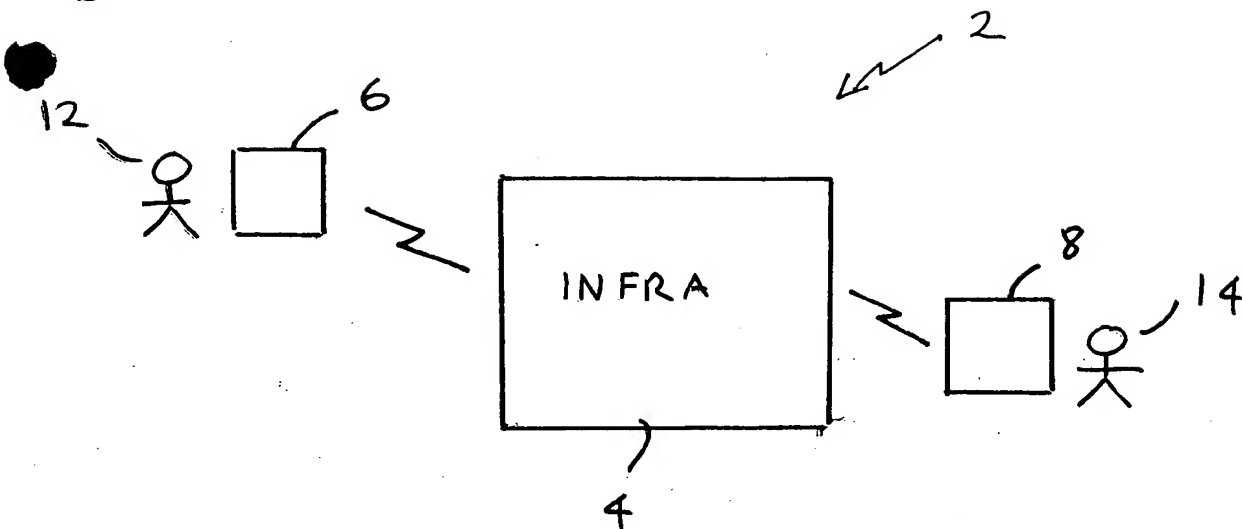
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Fig. 3

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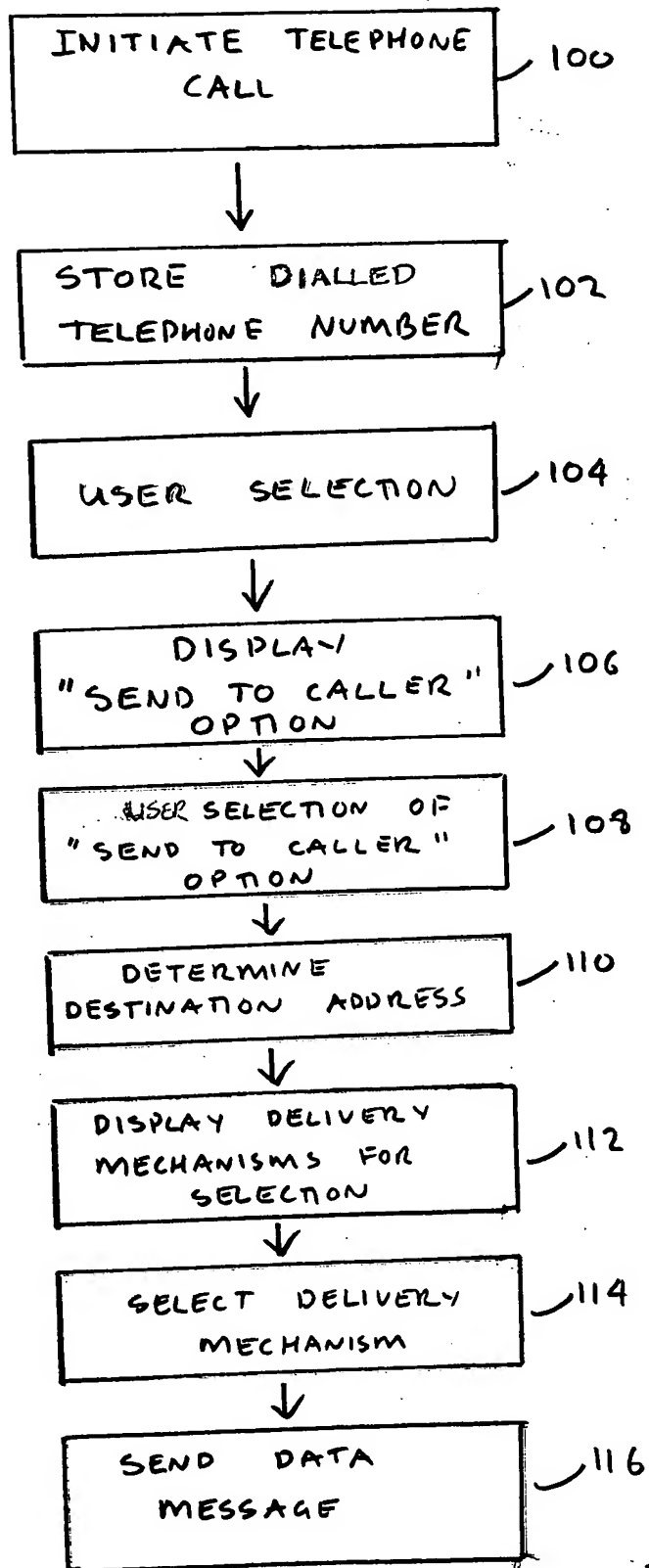


Fig. 3

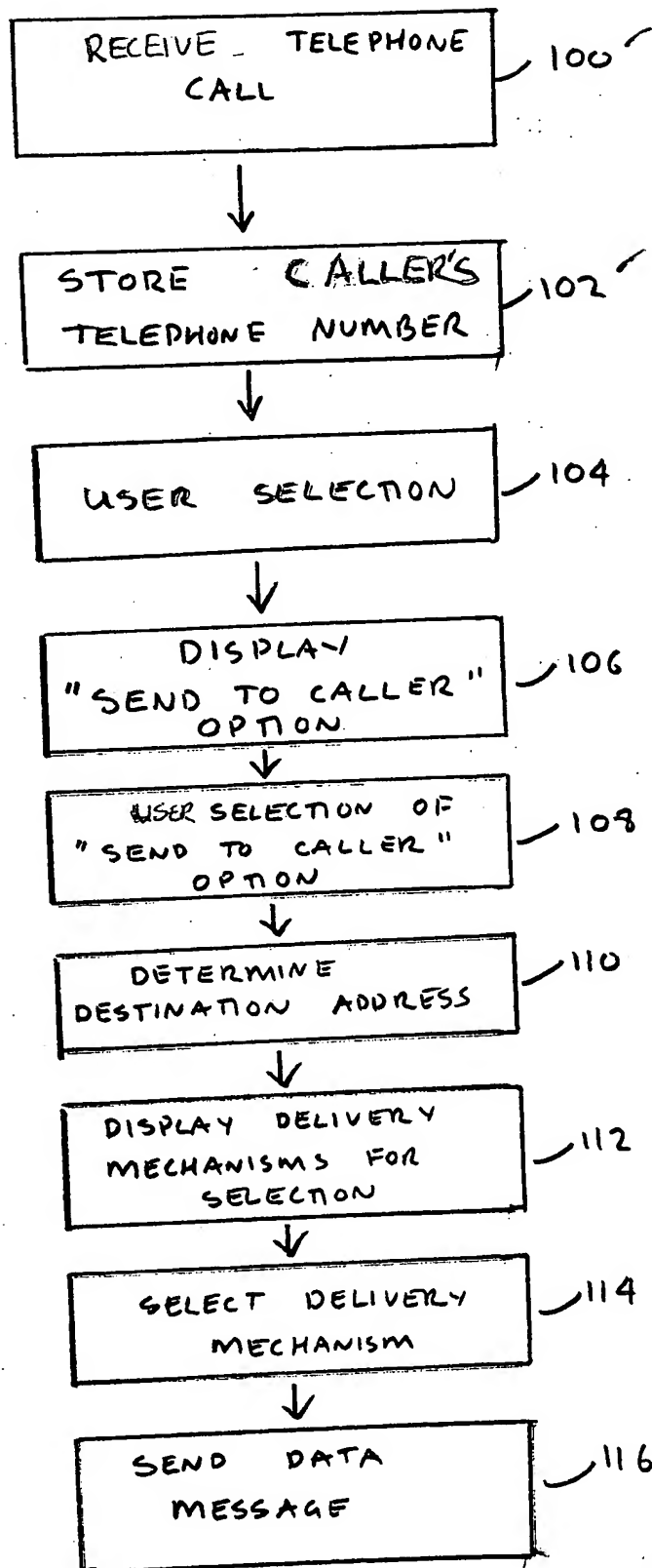


Fig. 4

